

lington, Emil Fischer, M.D., Isaac C. Price, Jos. G. Richardson, M.D., M. W. McAllister.

Prof. H. J. Clark was elected a correspondent.

On favorable report of the Committee, the following paper was ordered to be published :

# Sixth Contribution to the HERPETOLOGY of Tropical America.

BY EDWARD D. COPE, A.M.

LOXOPHOLIS RUGICEPS Cope, gen. et sp. nov.

Fam. Ecleopodidæ. The scales imbricate, arranged in oblique rows or quincuncially ; the exposed portion triangular, strongly keeled. Prefrontals, frontoparietals, parietals and interparietal plates distinct. Lateral and gular scales like dorsal ; ventral broad, smooth ; no gular collar, no lateral fold. Toes 5—5, all unguiculate. ? Femoral pores. Eyelid with transparent disc.

This genus differs from *Cercosaura* only in the squamation, which is of a character entirely different from that of any other genus of the group except *Tretioscincus* Cope, where the scales are also arranged after the type of the *Scincidæ*.

*Char. specificus*.—Tail moderately long, limbs well developed. Canthus rostralis a right angle, lores straight, top of head flat. Two loreals or preoculars between nasal and eye. Four superciliaries. Four supraorbitals. Internasal long as broad, prefrontals largely in contact. Frontal twice as long as broad, angulate before and behind. Fronto-parietals and the large inter-parietal longer than broad ; parietals rounded externally. Labials five, long and narrow, third and fourth under orbit, with a narrow series of scales between. Inferior labials five, narrow ; a large symphyseal ; behind this a still larger mental, behind which follow on each side a row of three large and two small infralabials, of which the first two pairs are in contact. Temporal scales keeled. Auricular opening large, a half disc, the truncation behind. Twenty rows of lance-triangular scales on back and both sides, and four rows of smooth abdominal scales, which are broader than long. Six large præanal plates, five reaching the margin, the two outer narrow, the median short. Scales of the limbs large-keeled. No pores on the femur in the specimen. Caudal scales like those of the back of *Pantodactylus*,—i. e., elongate parallelogrammic, in whorls and keeled ; keels stronger below than above. The hind limb laid forwards will reach the wrist of the anterior when appressed. Inner fingers and toes very small ; lengths of fingers 1—2—5—3—4 ; of toes 1—5—2—3—4.

The plates of the top of the head are rugose, with longitudinal striæ, which are not close, and more or less interrupted.

	In.	Lin.
Total length (end of tail lost).....	4	5.5
Length head to vent.....		18.2
“ “ axilla.....		7.2
“ “ ear.....		4
“ hind limb.....		6.6
“ “ foot.....		3.5
“ fore limb.....		4.8

Color above yellowish-brown, with a narrow blackish band on each side from the upper margin of the meatus to near the end of the tail. A median pair of bands appear near the rump, and continue half the length of the tail, but are very indistinct. The upper and lower labial plates with a continuous transverse black band through the middle of each. Throat, belly and tail below unspotted, yellow.

*Habitat*.—This Saurian is a native of the Magdalena River region, New Grenada, whence it was brought by Schulte Buckow, naturalist, and presented to 1868.]

our Museum in Philadelphia by J. Carson Brevoort. Specimens of *Tretioscincus bifasciatus* Dum., and *Dendrobates tinctorius* accompanied it.

*GERRHONOTUS AURITUS* Cope, sp. nov.

This species is distinguished by its strong massive head, with a series of elongato-conic flexible processes above the auricular meatus.

Muzzle flattened, canthus rostralis wanting. Each of the posterior pair of supranasals divided in two, the posterior parts on each side the rhombic internasal. Five supraoculars and five supraorbitals; other plates of the head normal; they graduate into the nuchals by three cross-rows of scales. Temples much swollen, but not angularly. Upper labials eight large and two small; lower labials nine, with two rows of infralabials; the inner of four large scales, the third largest. Side of neck and axilla coarsely granular; above the ear four long conic flexible processes, with two or three shorter below them. Scales of back and belly small for the genus, in sixteen longitudinal and twenty-six transverse series, from nape to groin. They are bony, and strongly but finely keeled. Ventral plates smooth, in 14 longitudinal rows. The lateral fold is slight, and contains about three rows of coarse granules.

The ground color is pea-green, more or less shaded with yellow; the rugosities of the scales everywhere black. Blackish green shades form indistinct Vs directed backwards on the middle of the back. Below yellowish, with dirty green shades. Eyelids and auricular processes yellow. Length to vent 5 in.; to axilla 2 in.; to ear 21.5 l.; to orbit 4.5 l.; greatest width of head 12.5 l. Length fore limb 15.5 l.; of hind limb 20 l.; of foot 10.2 l. The tail is short (3 in. 10.2 l.), and covered with bony scales, but I am not sure it has not been early reproduced.

This, the most singular species of the genus, is only equalled in beauty by the *G. gramineus* m. of Mexico, which it resembles. The latter has larger scales, a longer muzzle, and a much more angulate temporal region; the occiput is also well marked off from the nape by one projecting cross-row behind the postparietal, while there are three in *G. auritus*. Finally, its post-supranasals are not divided. Both these species are allied to the *G. tæniatus* and *G. deppii* of Wiegmann. Gray refers the latter to a genus *Abronia*, but a regular gradation of characters connect them with the other *Gerrhonoti*.

This is one of the Reptilian forms which inhabit the vast forests of Vera Paz, in the neighborhood of the ancient cities of Peten and Coban. Museum Smithsonian, Henry Hague discoverer.

*HOLCOSUS BRIDGESII* Cope, sp. nov.

This species is near the *H. sexscutatus* Günther, having quite the same coloration, that is, dark olive, with a pale vertebral band from the end of the muzzle and a lateral black band from the orbit, which is white-bordered above and below. The superior white line is much interrupted in this species. Top of head brown, below uniform light green. It differs considerably in the scutellation of the head. There is a pair of confluent supra- and prenasals in contact medially, and these are succeeded by a pentagonal internasal, but from this point the squamation is different; thus three plates represent each prefrontal, while some eighteen take the place of the frontal. Behind this point they are too numerous to homologize, except that a small median occipital is surrounded by series of tubercular or keeled scales, which are arranged in curved series running behind the occipital. The frontal scales are in three series, two larger superciliaries which are strongly keeled, and a median flat row, with those of the muzzle arranged quite as in species of *Anales*. Supra-orbitals two on each side, each a half-ellipse, keeled on the inner margin, surrounded by granules except the anterior, which is in contact with the superciliaries.

The throat fold is covered with granular scales; Günther says *H. sexscutatus* has a series of shields. He also states that the hind limb extended only reached to the posterior margin of orbit; in the present species it reaches

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considerably in front of the orbit. Günther gives twenty femoral pores; in the present there are twenty-four on each side.

In other respects, as to squamation, scutellation, etc., Günther's description applies to this species. See Proc. Zool. Soc. Lond. 1859. The allied *H. septemlineatus* A. Dum. differs in the less divided scales of the front, as well as in being seven-banded.

This Saurian is dedicated to my friend Robert Bridges, M.D., Professor of Chemistry in the Philadelphia College of Pharmacy, and an active member of the Academy of Natural Sciences.

The species is represented by one specimen in the Museum of the Academy.

*OPHEOMORPHUS MIMUS* Cope, sp. nov.

This is the only species of the genus which has the black annuli on red ground, characteristic of *Erythrolamprus* and other genera of American *Coronellines*, *Elaps*, etc. Its general appearance is exactly that of *E. venustissimus* with single rings, or *Ophibolus micropholis* with confluent rings. It agrees entirely with other species of this genus in double anal, short tail, diacranterian dentition and lack of scale-pores, but is slightly abnormal in the rudimental condition of the loreal plate; it is on one side entirely wanting.

Superior labials seven, eye over third and fourth, fifth largely in contact with postoculars. First, the only one longer than high. Muzzle short, head slightly distinct. Internasals transverse; orbitals 1—2, the anterior not reaching frontal. Temporals 1—2. Scales in 15 series, broad as long. Frontal with straight sides convergent behind; its length greater than its breadth, and longer than common suture of occipitals, though shorter than greatest length of the latter. Tail 6·8 times in total length; *i. e.*, 2 in. 3 l. out of 13 in. 6 l.

General color crimson, each scale with a brown spot near its tip. Ten black rings of 3 and 3·5 scales in width cross the body. They are sometimes divided, and the halves alternate; they are complete across the belly, but have a tendency to divide, especially the posterior. One pair of complete annuli on the tail, and four spots above near the tip. No black collar, chin uniform; head above and spot below eye black; plates on sides of muzzle and temples black-edged.

The long posterior maxillary tooth of this species presents a singular structure. Its section is triangular, two of the sides being shallow concave. The angle between these is the section of an acute posterior ridge of the tooth; the anterior face of the tooth is convex. The posterior sides being slightly concave to the tip, in some lights suggest the presence of the groove of *Erythrolamprus* and other genera, but both are similar, and neither is a true groove.

The habitat of this species is a mining district in the higher regions of Ecuador or New Grenada, but the exact locality I cannot fix. It was found with the following species: *Anolis fraseri* Gthr., *Rhabdosoma microrhynchum* Cope, *Holcosus bridgesii* Cope, *Opheomorphus mimus* Cope, *Amphisbæna fuliginosa* L., *Masticophis pulchreeps* Cope, and *Elaps sævus* Cope.

Specimens in Mus. Academy from Edward Day, of the Assay Department of Columbia College, New York.

*LIOPHIS FLAVITORQUES* Cope, sp. nov.

This is a small and aberrant species of the genus. Its peculiarity consists in a projecting rostral plate, as in *Lygophis conirostris* Gthr., which is consequently developed on the upper aspect of the muzzle. The tail is also rather longer than in any other species, its length entering the total 3·2 times. In this it approaches *Dromicus*.

Internasal plates about as long as wide; prefrontals considerably wider than long. Frontal with superciliary borders each one-third the anterior suture, and about half the occipital; thus the plate is very wide, with a long produced posterior angle. Each nasal higher than long, narrower than the loreal; latter higher than long, straight above, angulate below. Preocular higher than long, 1868.]

two postoculars; temporals 1—2. Superior labials seven, all higher than long except the last, third and fourth bounding orbit. The eye small, pupil round. Inferior labials seven, the fourth as long as any three others, the first well developed behind symphyseal. Geniials short, the posterior half the length of the anterior, and separated by a plate. Scales in seventeen series, rather broad, subequal. Gastrosteges 188; anal 1—1; urosteges 105. Total length 17.5 inches; of tail 5.5 inches.

Everywhere above dark brown, except a broad yellow half-collar which crosses the posterior half of the occipital shields and two rows of scales. Below dirty yellowish.

This serpent is from the Magdalena river, New Grenada. Brought by Schulte Buckow, of New York.

The physiognomy of the head of this species is somewhat like that of *Oxyrhopus*, though the characters are different.

*LIOPHIS PERSIMILIS* Cope, sp. nov.

This species is very much like the *Coniophanes fissidens* Gthr. in general appearance; it differs generically in its uniporous scales and entire posterior maxillary tooth. It also resembles *Rhadinaea obtusata*, but differs also in dentition and pores. The form is more like the latter than the former, as the head is relatively small.

Scales in 17 rows. Frontal nearly as wide as superciliary suture; occipitals long, truncate behind; supranasals very small. Postnasal much larger than prenasal, loreal nearly square; preocular one, narrow, not approaching frontal. Two postoculars. Seven upper labials, eye over third and fourth; postoculars two; temporals 1—2—3. Inferior labials seven; post-genials longer than pre-genials. Gastrosteges 131 and 1—1. Urosteges 70.

Total length 11 in. 3 l.; of tail 3 in. 3 l. Above light brown, with a dark brown band on each side, from the neck to the end of the tail, which is dark bordered above on the lower edge of the fourth row of scales. Labial plates white edged above. Belly and tail below yellow, a black dot on the edge of each scutum and scutellum.

From Rio de Janeiro, Brazil; brought by the Thayer expedition. Mus. Compar. Zoology, No. 436.

*CONOPHIS PULCHER* Cope, sp. nov.

Scales in nineteen longitudinal rows. Loreal a little longer than high; orbitals 1—2, temporals 2—3. Muzzle rather projecting. Head little distinct. Superior labials, eight, higher than long except the last, fourth and fifth forming orbit below. Gastrosteges 73, anal 1—1; urosteges 67. Total length 29 in. 3 l., of tail 6 in. 3 l.; of gape 9.2 l.

Six dark longitudinal bands on a light ground. First a black band along the middle of the first row; second a dark brown black edged on the third and half the second and fourth; third a similar broadly black margined on the eighth and half the seventh and ninth, separated from its fellow on the other side by a median stripe of only one scale in width which is black edged. This median band disappears on the nape, leaving a broad band to the end of the muzzle, extending over the occipitals and superciliaries. The lateral band extends in like manner to the end of the muzzle including the upper edges of the labials. Throat clouded with blackish below. Belly yellow with a few specks on each end of the gastrosteges. Upper labials broadly brown edged below. The bands extend to the end of the tail.

From near Peten, Vera Paz. Henry Hague; Museum Smithsonian.

This handsome species is near the *C. vittatus* Peters, but differs in many points of coloration, and in having one more labial shield above and below. From *C. lineatus* D. and B., it differs also very much in coloration.

*HELICOPS FUMIGATUS* Cope, sp. nov.

Scales in nineteen rows, blacked anteriorly and posteriorly, lower rows smooth.

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Two pairs genicals; occipitals short and broad. Dark brown, with numerous lighter or dark gray cross bands, which are blacked edged, and extend to the first row of scales, and are sometimes interrupted on the vertebral line. Belly with a broad brownish gray band from throat to vent, the ends of the gastrosteges yellow, forming two bands; a median longitudinal brown line on the tail.

Tail 3·3 times in length. The plates of the head and other peculiarities are quite like those of *H. angulatus*.

From Surinam, Mus. Academy Natural Sciences. Discovered by Chas. Hering, M.D.

#### *HELICOPS CYCLOPS* Cope, sp. nov.

Scales in nineteen rows, strongly keeled everywhere, including the first row. Two pairs genicals; occipitals short and wide, long as frontal.

Head exceedingly short, mouth wide as the length of the rounded lip margin. Superior labials eight, fourth scarcely entering orbit by its upper corner (by its whole extremity in *H. angulatus*), the fifth, sixth and seventh narrow and high. Prefrontals broad as long (much broader than long in *H. angulatus*). Orbitals 1—2, nearly meeting below orbit. Temporals 2 | 1 | 3 (1 | 1 | 3 in *H. angulatus*). Loreal plate wide as high, (higher than wide in *H. angulatus*).

Tail ·33 total length, slender (less than ·25, *H. angulatus*). Gastrosteges 124, anal 1—1; urosteges 89.

Light yellowish brown, with twenty-six transverse deep brown rhombs across the back which terminate at the second row of scales, being separated from the back ventral cross-bar, which is opposite each, by a longitudinal yellow band. This band is not distinct between the spots. Belly strong yellow with jet black cross bars, which are on more than two gastrosteges. Tail black, spotted below. A brown cross-band between the eyes.

Length 27·5 inches. From Bahia, Brazil. Mus. Academy, from Dr. Otho Wucherer.

This species is at first sight much like the *H. angulatus*, but differs variously as above. In coloration the spots in the latter are always continued into the ventral cross-bars, and not interrupted as in *A. cyclops*.

The species of the genus are as follows: *H. carinicauda* Nieuw. *H. modestus* Gthr. *H. lepieurii* Dum. Bibr. *H. chrysostictus* Cope. *H. infrataeniatus* Jan. *H. fumigatus* Cope. *H. cyclops* Cope. *H. angulatus* Linn. *H. polylepis* Gthr. The following species have been erroneously referred to this genus: *H. wagleri* Jan. is *Tretanorhinus variabilis* Dum. Bibr. *H. agassizi* Jan. is *T. nigroluteus* Cope. *H. schistosus* Jan. is *Atridium schistosum* Daudin, and *H. mortuarius* Jan. is *Tropidonotus mortuarius* (Boie) Schlegel (*Tropidonotus ferox* Günther).

#### *THRASOPS PRESTANS* Cope.

The largest species of the genus, exceeding considerably the *T. flavignularis* of Hallowell. The length of one sp. is 6 ft. 3 in., of which the tail is 2 ft. 3½ in., while the body of another measures 4 ft. 6 in., giving a total of seven ft. 1 in. Length head to end of quadratum 1 in. 10 l., width between superciliary margins 8 lines, diameter orbit 4 l.; from orbit to end of muzzle 6 lines.

The head is very distinct, and the muzzle rather short for the genus; the eyes are very large. Rostral plate small, postnasal lower than prenasal; place of the loreal entirely occupied by the prefrontals. Orbitals 1—2, the anterior not quite reaching the frontal. Frontal one-sixth longer than wide in front, with concave sides and short posterior angle. Occipitals broad, short, divaricate behind; temporals 1—2. Superior labials nine, fifth and sixth in orbit, last two longer than high. Inferior labials 11, the anterior very wide; postgenials longer than pregenials.

Scales in fifteen rows for a part of the length, in eleven on the posterior



half of the body. They are without pores on the side, but are uniporous on most of the rows. All the rows except the inferior, are carinate. On the middle and posterior part of the length, that of the vertebral becomes obsolete, and then vanishes, while those of the two on each side, especially the superior, become very strong. Tail entirely smooth. Gastrosteges 180. Anal divided; urosteges 176; the first are strongly turned up at the sides, and not angulate.

The teeth increase in length gradually to the posterior end of the maxillary bone, where the last is abruptly the largest; they are strong, and eleven in number.

Color everywhere bluish green without metallic reflection, the keels of all the scales black.

This beautiful species was sent to the Smithsonian Institution by its correspondent Henry Hague, near Peten, Guatemala,

#### LEPTODIRA PACIFICA.

Scales in nineteen series, biporous, all nearly equal. Body cylindric, neck little compressed; head short, broad. Oculars 2—2, loreal higher than long. Superior labials seven; eye over third and fourth. Temporals 1—2. Frontal longer than broad, with straight parallel borders; occipital elongate, truncate behind. Internasals long as wide, one-third prefrontals. The superior pre- and postoculars are both much larger than the inferiors. Gastrosteges 164, anal 1—1, urosteges 61 pairs. Length of head and body 7 in. 3 l., of tail 2 in.

Color above bright rose-brown, with four series of blackish-brown, very small spots, of which the median pair forms usually a short cross-bar by their union; in this case they extend over five series of scales. The lateral spots are on the fifth row, and cover half a scale. A broad black bar across the nape; a short brown line behind each eye, and a number of dots on the crown. Below uniform cream color.

The above description is derived from a young animal. It was given to the Smithsonian Institution by its correspondent, G. Bischoff, and sent to me for examination. In its characters it approaches the species of *Hypsigena* (*Pseudodipsas* Peters,) but has a grooved maxillary tooth and double scale-pores. It has different labials, scales and coloration, from the *L. annulata*.

#### LEPTODIRA PERSONATA Cope, sp. nov.

Body slightly compressed, neck contracted, head elongate, narrowed in front of the orbits. Scales equal, biporous, in twenty-three rows. Internasals broader than long, frontal elongate, with parallel sides, superciliaries narrowed, occipitals narrowed, elongate, rounded behind. Temporals 1—2; oculars 1—2, anterior barely reaching frontal; loreal long as high. Superior labials eight, fourth and fifth in orbit. Geni-als equal. Gastrosteges 173, anal 1 | 1 |, urosteges ? (tail mutilated). Length head and body, six inches.

General color cream, with broad black cross-bands on the dorsal region. These extend from the gastrosteges anteriorly, posteriorly from the first series of scales. There are twenty-three between nape and vent, which are wider than the intervals. Top of head except upper labials entirely black; a broad yellowish collar. Below immaculate.

The Smithsonian collections have received this species from Mazatlan, Western Mexico, from G. Bischoff. It was sent with the *Leptodira pacifica*, *Agalychnis dacnicolor* Cope, and *Holbrookia bischoffi* Cope and other species.

#### PHIMOTHYRA DECURTATA Cope.

This species resembles considerably the species of *Lytorhynchus* Peters, which genus in Africa represents the American *Phimothyra*. They differ only in dentition, the former being diacranterian, the latter rather coryphodont.

This species is distinguished by many features. The head is shortened and

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somewhat arched, the rostral plate very broad and free, entirely separating the internasals. There is a complete annulus of scales round the eye. The tail is relatively shorter than in the known species.

Ground color light grey; a series of elongate parallelogrammic brown blotches occupies the dorsal region, from the nape to the end of the tail. Labials and under surfaces unspotted.

Length about fourteen inches. This serpent is remarkably different from the three already known representatives of the genus. In these the orbit rests on the labials, and the color is in bands.

Presented to the Mus. Acad. Nat. Sci. by Wm. M. Gabb, who discovered it in the upper part of Lower California.

*PELTAPHRYNE LEMUR* Cope, sp. nov.

This is a toad of singular aspect, owing to the extraordinary development of the bony crests of the cranium and the large size of its eyes.

The muzzle is short and very much flattened, projecting much beyond the mouth. The upper lip forms indeed a strongly projecting bony rim all round the mouth. Loreal region very concave, canthus concave and very close together. The superciliary crests are extraordinarily elevated, having an arched outline, and descending steeply to the loreal region. It is angulate posteriorly, joining the almost equally developed supratympanic ridge. The crown of the head is thus a deep basin, widened above the tympana, and obstructed by a cross-elevation in front. Strong ridges behind and before the orbit; nostrils vertical, a short bony longitudinal ridge below them. According to the characters of the genus there is no derm on the head. Tympanum vertically oval. Parotoids broad oval, directed obliquely downwards, covered like the remainder of the upper surfaces of the body and limbs, with numerous closely placed sub-round tubercles, with rugose surfaces. Feet rather short, with small tubercles, and only one remarkably weak metatarsal tubercle, the inner. A strong corneous ridge on the inner margin of the tarsus. The heel reaches the middle of the parotoid. The toes are about half-webbed, and have a strong dermal margin. Two strong carpal tubercles. Under surfaces studded with small tubercles, with acute points. Tongue obovate, largely free.

	In.	Lin.
Length head and body.....	4	5.5
“ to axilla.....	2	
“ “ posterior margin tympanum.....		15
“ “ anterior margin orbit.....		6
“ of fore limb.....	2	5.5
“ “ hind limb.....	4	3.5
“ “ “ foot.....	2	4
Width of head behind.....		17.5
“ interorbital space.....		8.5
“ top of muzzle.....		1.3

The color above is a blackish-brown, the top of the head yellow shaded; two longitudinal brown spots on the frontal region. A light vertebral line disappears on the back and reappears on the coccyx, and another light line passes round the inside of the parotoids and diverges on the scapular region. Limbs yellowish cross-banded, below dirty white, below the vent blackish.

This curious animal was found by George Latimer, the correspondent of the Smithsonian Institution in Porto Rico, W. I. We are indebted to the same zoologist for the following species:

*PELTAPHRYNE LEMUR* Cope.

*CYSTIGNATHUS ALBILABRIS* Gthr. var.

*HEMIDACTYLUS MABUIA* Cuv.

*MABUYA FULGIDA* Cope.

*DIPLOGLOSSUS DEGENER* Cope.

1868.]

*ANOLIS VELIFER* Cuvier. The female of this species would fall in the "genus" *Eupristis* Fitz.=*Dactyloa* Gray.

*TYPHLOPS* sp.

*CHILABOTHRUS INORNATUS* Dum. Bibr. Only found elsewhere in Jamaica.

*ALSOPIHIS SANCTICRUCIS* Cope (= *A. melanichnus* Cope).

*OTASPIS EMPUSA* Cope. *Peltaphryne empusa* Cope, Proc. Acad. Nat. Sciences, Philad. 1862, p. 344.

This species does not belong to *Peltaphryne*, but to a genus which I now name. It differs from the former in the existence of an additional superficial arch of the skull, which passes from the mastoid region behind the auricular meatus, thus enclosing the latter, and causing it to be a mere foramen perforating a shield of bone. This is the only genus of living *Batrachia* in which the external ear is thus completed behind. It is a tendency of *Peltaphryne* carried to its highest extreme.

Cuba; found by Prof. Poey.

*LYSTRIS BRACHYOPS* Cope, sp. et gen. nov. *Cystignathidarum*.

Tribe *Pleurodema*, same group as *Pleurodema*, differing only from that genus in the presence of two strong shovel-like metatarsals, as in the genus *Systema*.

Its characters are, therefore: cranium with a fronto-parietal fontanelle; xiphisternum an osseous style, with furcate cartilage disc. Vomerine and maxillary teeth well developed; a large inguinal gland; two metatarsal shovels.

It differs from *Gomphobates* in its fontanelle and vomerine teeth, but is intermediate between this genus and *Pleurodema*, showing that the tribes *Pleurodema* and *Cystignathi* should be closely approximated. It differs only, so far as we know the characters, from *Eupemphix* Steind., in the presence of a well-developed dentition in adults as well as young. The other characters of *Eupemphix* are not yet known, or whether it is nearer this genus or *Gomphobates*. Steindachner's second species of *Eupemphix* I would refer here, and call it *Lystris fuscomaculatus*. Name of the genus from *Λυστρον*, a trowel.

*Char. specificus*.—Vomerine teeth in two short oblique series directed forwards between the nares, about as far from the latter as from each other. Tongue a flat oval, one-third free. Head broad, occiput slightly swollen, canthus rostralis straight, obtuse, convergent; loreal region vertical plane. Diameter of bony orbit equal length of muzzle; the latter contracted, elevated, rounded in profile; nostrils nearer end than orbit. Membrum tympani one-third orbit. Ostia large as nares. Males only with a subgular sac, with large lateral slits. Limbs short, stout; the heel barely reaching the tympanum. Toes quite short, free, without dermal margins. No tarsal median tubercle or fold. Inguinal gland large subovate. Skin smooth above and below; a few ill-defined warts on the back. Lengths of fingers 3—2—1—4.

	In.	Lin.
Length head and body.....	1	8.5
“ muzzle to posterior edge tympanum.....		7
“ hind limb.....	2	2
“ foot.....		12.5
“ tarsus.....		4.8
Width head just behind tympanum.....		6.4

Color above dark brown, with several darker brown broad irregular bands, which cross the back in three places or are broken into spots, and are sometimes confluent longitudinally. Sides with dark brown lines and specks. Lip with two vertical brown bands on each side. Inguinal glands black, white speckled. Limbs brown, deeper banded; sole from heel dark brown. Below yellow, gular region brown.

Magdalena River, New Grenada, Schulte Buckow, collector.

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SPELERPES LINEOLUS Cope, Proc. Acad. Nat. Sci. Philad. 1865, 196. *Ophiobatrachus vermicularis* Gray, Ann. Mag. N. Hist. 1868, 297.

This species varies somewhat in the relative length of the tail. One of the specimens from Cordova, Vera Cruz, measures as follows: head and body 17·3 lines; tail 2 in. 10·4 lines.

In the collections of the Smithsonian Institution.

GROTRITON CARBONARIUS Cope.

A uniformly black variety of this species occurs in the high lands of Guatemala, and another with two dorso-lateral ochre bands is found in Yucatan. Mus. Smithsonian.

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Dec. 1st.

The President, Dr. HAYS, in the Chair.

Thirty-five members present.

The following papers were presented for publication:

“Notice of some remains of extinct Insectivora from Dakota.”

By Dr. J. Leidy.

“Observations on Reptiles of the Old World. Art. II.” By Edw. D. Cope.

“Notes on some points in the structure and habits of the Palæozoic Crinoidea.” By F. B. Meek and A. H. Worthen.

DR. LEIDY exhibited some specimens of Mica recently received from Westport, Canada, remarkable for the beauty and distinctness of its asterism, produced by minute acicular crystals profusely scattered between the laminae. The star exhibited twelve equidistant rays, exceeding in strength any previously seen by him in varieties of the mineral.

PROF. COPE made some observations on some extinct reptiles of interest. One of these, represented by a single sacro-caudal vertebra from Swedesboro', N. J., indicated a second species of *Elasmosaurus*. It was of equal size with the corresponding one of the Kansas specimens, but differed in the square and uncontracted form of the centrum, and greater stoutness of the diapophyses. He called it *E. ORIENTALIS*.

Another reptile was represented by a vertebra, tooth, and portion of mandible. It was a gavial-like crocodile, which if of proportions similar to those of the Gangetic species, would indicate an animal of thirty feet in length. It belonged to the genus *THECACHAMPSA* Cope, and was allied to the *T. ANTIQUA* (*Crocodylus* Leidy), but differed in the more compressed knife-like tooth crowns. Miocene of Maryland.

He also exhibited bones and teeth of a large Rodent from the cave deposits of Anguilla, one of the Virgin West India Islands. The characters observed were those of the genus *Chinchilla*, but the roots of the teeth were contracted and not so open as in many Rodents, as though having a more limited period of growth, or perhaps like deciduous teeth, which are much reduced in number in most Rodents. The species was nearly as large as the *Castoroides ohioensis* of North America, but had relatively smaller incisor teeth. The body was probably as large as that of the Virginia deer, and the limb bones as stout, as seen in portions of femora and other pieces preserved. He called the animal *AMBLERHIZA INUNDATA*, and thought that its discovery on so small an island, with others of like character, indicated that the Carribean continent had not been submerged prior to the close of the Post-pliocene, and that its connection was with other Antilles, while a wide strait separated it from the then comparatively remote shores of North America.